DOCUMENT RESUME

ED 073 506 CS 500 172

AUTHOR Heston, Judee K.
TITLE Effects of Personal Space Invasion and Amonia on Anxiety, Nonperson Orientation and Source Credibility.
PUB DATE Dec 72
NOTE 27p.; Paper presented at the Annual Meeting of the Speech Communication Assn. (58th, Chicago, December 27-30, 1972)

EDRS PRICE MF-$0.65 HC-$3.29
DESCRIPTORS Attitudes; *Communication (Thought Transfer); *Conflict; Environmental Influences; Individual Characteristics; *Nonverbal Communication; Perception; Personality Assessment; *Reactive Behavior; Space Orientation; *Stimulus Behavior

ABSTRACT

It is hypothesized that subjects who are highly anomic will demonstrate less anxiety and higher nonperson orientation than normal subjects will when personal space is invaded. Fifty-six pretested subjects classified as either anomic (14 males, 14 females) or normal (14 males, 14 females) were placed in one of two interview conditions: personal space invasion or no invasion. Half of the anomics and half of the normals were placed in each interview condition. Immediately following the individual five minute interviews, state and trait anxiety scales, written essays upon which a nonperson orientation ratio was based, and source credibility scales were completed by the interviewees. A 2x2 factorial design, with high and low anomia as one factor and personal space invasion or no invasion as the other, was used. Analysis of the data did not result in confirmation of the major hypothesis, although several subordinate hypotheses were supported. A thorough discussion of the total results is included. (Author/LG)

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY

ED 073506

EFFECTS OF PERSONAL SPACE INVASION AND ANOMIA ON ANXIETY, NONPERSON ORIENTATION AND SOURCE CREDIBILITY

by

Judee K. Heston

Department of Speech Communication

West Virginia University

PERMISSION TO REPRODUCE THIS COPYRIGHTED MATERIAL HAS BEEN GRANTED BY
Judee K. Heston

TO ERIC AND ORGANIZATIONS OPERATING UNDER AGREEMENTS WITH THE U.S. OFFICE OF EDUCATION. FURTHER REPRODUCTION OUTSIDE THE ERIC SYSTEM REQUIRES PERMISSION OF THE COPYRIGHT OWNER.

FILMED FROM BEST AVAILABLE COPY

Paper presented at the Speech Communication Association Convention

December, 1972

Chicago, Illinois

CS 500172

EFFECTS OF PERSONAL SPACE INVASION AND ANOMIA ON ANXIETY, NONPERSON ORIENTATION, AND SOURCE CREDIBILITY

by
Judee K. Heston[1]

In an effort to provide a comprehensive examination of the process of communication, researchers have broadened the focus of their investigations to include nonverbal and sociological variables. Two such variables that appear to have related, indirect impact on communication are personal space invasion and anomia.

Personal space invasion is a nonverbal communication construct taken from the study of proxemics, which concerns man's structuring and perception of space (Watson 1970). Its relevance to communication is in the potential effects of a violation of personal space. Anomia, a concept familar to sociologists, is a derivative of anomie, which is a societal neurosis. Its relevance to both communication and personal space invasion is in its extensiveness and its manifestations, which include anxiety, nonperson orientation and changes ir perceptions of source credibility. These are three of the same potential responses to an invasion of personal space.

REVIEW OF LITERATURE

Personal Space Invasion

Personal space refers to a person's perceived self-boundaries. The boundaries are invisible and enclose a space which has been likened to a bubble. Personal space is portable and may expand or contract. According to Hall (1959), each individual's boundaries are relatively stable, but they fluctuate for different types of interactions. An invasion of personal space occurs:

> when those not entitled to entrance or use nevertheless cross the boundaries and interrupt, halt, take over or change the social meaning of the territory (Lyman and Scott, 1967).

In American culture, a person is likely to experience discomfort if another person moves closer than 30 to 36 inches, except in intimate relations (Hall, 1959).

---

[1]Acknowledgment is given to Professor James McCroskey, who provided valuable assistance and advice on this research project.

Studies of invasions of personal space strongly reveal the impact of a spatial invasion on a person's behavior. The following responses have been observed: (a) flight (Felipe and Sommer 1966), (b) change in body orientation (Felipe and Sommer 1966; Patterson, Mullens and Romano, 1971; Patterson and Sechrest, 1970), (c) reduced eye contact (Argyle and Dean, 1965; Goldberg, Kiesler and Collins, 1967), (d) compensatory behaviors such as pulling in elbows or placing a hand or elbow between self and the experimenter (Felipe and Sommer, 1966; Patterson, et. al., 1971) and under threatening conditions, (e) increased eye contact (Mehrabian, 1968). These overt behaviors are symptomatic of anxiety and a nonperson orientation and imply an effect on the subject's perception of the intruder.

A person's anxiety resulting from personal space invasions may be inferred from his observed coping behaviors. Argyle and Dean (1965) in their study of eye behavior observed that when subjects were placed within two feet of each other, they coped with their apparent discomfort by trying to move their seats further apart, leaning backward, looking down, shading their eyes, scratching their heads and in other ways reducing the intimacy of the situation. A variety of library, institutional and outdoor studies (Baxter and Deanovitch, 1970; Felipe and Sommer, 1966; Garfinkel, 1964; Patterson, et. al., 1971; Sommer, 1959, 1969) produced similar findings. Two additional studies have measured anxiety more directly. Williams (1968) found that subjects with high chronic (trait) anxiety judged the distance between themselves and their partners as significantly closer than their less anxious partners perceived it. In a physiological study (McBride, King and Jones, 1965), as the experimenter's proximity to the subject increased, the subject's GSR increased with GSR's at one to three feet significantly higher than at nine feet.

The second possible effect of a violation of personal space is nonperson orientation. A person with a high degree of nonperson orientation regards others as objects rather than persons. This orientation may be regarded as a coping behavior to reduce anxiety or replace it. Studies by McBride, et. al. (1965) and Horowitz, Duff and Stratton (1964) indicate that a person is less anxious in close proximity to an object than to a person, which suggests that increased nonperson orientation would serve to reduce anxiety by relegating the invader to an object status. Sommer (1969) concluded from his library studies that a spatial invasion occurs only when the invader is regarded as a person:

> A nonperson cannot invade someone's personal space anymore than a tree or a chair can. It is common under certain conditions for one person to react to another as an object or part of the background. (p.24)

A third potential response to an invasion of personal space is changes in source credibility. If a person responds to a violation of his personal space by being more anxious and regarding the intruder as a nonperson, his evaluation of that person who caused his anxiety is likely to change. Patterson and Sechrest (1970) found that differences in distances between an interviewer and interviewee affected credibility ratings. It should therefore follow that when the emotions are also aroused through a perceived invasion of personal space, that reactions to the invader should be even more pronounced.

Anomia is the individual form of the sociological construct of anomie, which is an acculturated neurosis. Anomie in a society produces anomia in an individual. Anomia may be defined as the failure to understand or internalize society's norms and values. The anomic individual may be extremely insecure, he may substitute means for ends as the goals in his life, and/or he may be suicidal (Ackerman and Parsons, 1967). Elmore (1965) found anomia to be most characterized by feelings of meaninglessness, powerlessness, hopelessness, aloneness, and close-mindedness. Carried to its extreme, anomia becomes alienation. As defined by Marx (Fromm, 1968),

> ...man does not experience himself as the acting agent in his grasp of the world, but that the world (nature, others, and he himself) remain alien to him. They stand above and against him as objects...Alienation is essentially experiencing the world and oneself passively, receptively, as the subject separated from the object. (p. 14)

The significance of anomia to communication is its extensivity. A variety of scientists, psychologists and sociologists (cf. Dean, 1961; Einstein, 1949; Friedenberg, 1959; Jackson, 1965; Seeman, 1959; Shore and Massimo, 1969) have all concluded that anomie and alienation are pervasive in our society. Some of the reasons cited for extensive anomia include too much prosperity producing unlimited, unfulfilled wants (Durheim, 1951); competition for status generating insecurities, tensions and hostilities (Janowitz, 1956); the techno-industrial revolution (Gerston, 1965); disenchantment with consumption and leisure (Gerston, 1965); and adult transmission of their disappointments and frustrations to the young (Noshpitz, 1970).

Anomia may affect communication through three of its potential manifestations, the first of which is anxiety. The anomic individual's sense of meaninglessness and valuelessness leads to a general state of anxiety. Barta(1963) and Shoemaker (1968) found that there were direct correlations between hostility and anxiety.

The second manifestation is high nonperson orientation. Although there is no empirical foundation for a relationship between a nonperson orientation and anomia, anomia by definition results in nonperson orientation (Fromm, 1955). Confronted with continual stress, modern man must of necessity become desensitized to cope with his persistent anxiety. His desensitization manifests itself partly in a high nonperson orientation: by regarding some people as objects, he eliminates the perceived threat to his security and integrity.

The third potential manifestation is different perceived credibility of others by anomics. The predictions for an anomic person's ratings of another's credibility are equally lacking in empirical foundation. Two opposite predictions can be made. On the one hand, the anomic individual has low-self-esteem and is high in authoritarianism, which might lead to a high evaluation of others, especially those perceived as authorities. On the other hand, the anomic individual perceives communication denial from others (Giffin, 1970; Heston and Anderson, 1972) and has a generalized distrust of others (Merton, 1964). Both of these characteristics lead to the expectation that the anomic person would rate others lower on credibility. Whichever the direction of the ratings, the implication is that anomics will rate others differently than non-anomics will because of their different orientation to the world and to other people.

GENERATION OF HYPOTHESES

The research cited showed that both anomia and personal space invasion should affect the variables of anxiety, nonperson orientation and source credibility. No previous research examined the interaction of the two independent variables. The literature on anxiety suggested that a personal space invasion would excessively heighten their anxiety, causing them to cope by regarding the intruder as a nonperson. In contrast, the normal person, having no initial anxiety would respond with increased situational anxiety. These speculations led to the following two hypotheses:

1. Anomics will exhibit a higher level of nonperson orientation when their personal space is invaded than when it is not.
2. When personal space is invaded, anomics will exhibit less situational anxiety than normals.

The research on anxiety indicated that an invasion of personal space should increase anxiety, regardless of the anomia level. This led to Hypothesis 3:

3. Subjects will exhibit more situational anxiety when their personal space is invaded than when it is not.

The literature on nonperson orientation suggested that personal space invasion increased nonperson orientation and that anomics, due to their chronic anxiety, will cope by adopting a high level of nonperson orientation. These conclusions produced Hypotheses 4 and 5:

4. Subjects will exhibit a higher nonperson orientation when their personal space is invaded than when it is not.
5. Anomics will have a higher nonperson orientation than normals.

The research on source credibility posited that proximity affects credibility, but the findings were too limited to produce specific, directional hypotheses. Similarly, literature on anomia suggested that anomics would differ from non-anomics in their perceptions of credibility but it was an inadequate basis for directional hypotheses. The two resultant hypotheses on credibility were:

6. Subjects will rate an interviewer differently on the dimensions of source credibility when their personal space is invaded than when it is not.
7. Anomics will rate an interviewer differently than normals on the dimensions of source credibility.

Finally, previous studies had established correlations among alienation, anomia and trait anxiety. These studies were replicated through the testing of the following two hypotheses:

8. Alienation scores will correlate with anomia scores.

9. Trait anxiety scores will correlate with alienation and anomia scores.

EXPERIMENTAL PROCEDURES

Selection of Subjects

Subjects were chosen by administering a combination of the Srole Anomia Scale (1956) and the Dean Alienation Scale (1961) to 310 students in the basic communication course at Illinois State University. The 14 males and 14 females with the highest scores and the 14 males and 14 females with the lowest scores were used as subjects.

The Srole Anomia Scale contains five items with which the respondent may agree or disagree. For this study, each item was given a six point range from strongly agree to strongly disagree. The scale has a reliability of .90 (Miller, 1970).

The Dean Alienation Scale is a twenty-four item Likert scale which measures three components of alienation: powerlessness, normlessness and social alienation. The total scale has a reliability of .78 when corrected (Miller, 1970).

Experimental Design

The study employed a 2 x 2 factorial design. Subjects were classified as normals (low scores) or anomics (high scores) and placed in one of two conditions: personal space invasion or no invasion. In the invasion condition, a male confederate sat next to the subject, moving his chair and body as close to the subject as possible without touching. The confederate was instructed to position his legs, arms, head and torso to come within twelve inches of the subject. In actuality, the distance maintained averaged from six inches to near touching. In the no invasion condition, the confederate sat approximately four feet from the subject, with the chairs facing obliquely toward one another.

Half of the anomics and half of the normals were placed in each condition. Sex was controlled by having seven males and seven females in each of the four cells.

EXPERIMENTAL DESIGN: 2 x 2 FACTORIAL DESIGN

	Invasion	No Invasion
Anomics	7 Males 7 Females	7 Males 7 Females
Normals	7 Males 7 Females	7 Males 7 Females

Experimental Setting

The actual experiment took place in a communication laboratory filled with randomly placed camera equipment, chairs and a table. The subjects were told they would be participating in a role-playing experiment, with the confederate assigned the role of interviewer and the subject assigned the role of interviewee. The same confederate was used for all interviews. The topic assigned was student political involvement. Each interview lasted five minutes.

Following each interview, the confederate and subject were sent to separate rooms to complete the anxiety, credibility and

nonperson orientation measures. The confederate did not actually complete any of the measures.

Measurement

Subjects were tested for situational anxiety by using the State Anxiety Inventory. This scale measures a person's transitory anxiety (Spielberger, 1966). It asks the person to respond to the degree to which 20 statements describe how he feels at that particular time. The test has a reliability of .83 to .92 (Spielberger, Gorsuch and Lushene, 1968).

The nonperson orientation was measured by having subjects write a brief essay describing the situation they had just experienced. The number of statements making reference to the interviewer were counted and compared to the total number of statements. The ratio derived indexed a subject's person orientation; the inverse indexed his nonperson orientation. This measurement technique was pre-tested in a pilot study. Eight subjects were interviewed, half with their personal space invaded and half without. Each subject then completed the essay. The essays were examined for any difficulties in coding sentences. It was decided that references to the actual interviewer would be counted while generic references would not.

Source credibility was measured by using 15 semantic differential adjective pairs representing peer credibility scales. These scales have been developed by McCroskey and his associates at Illinois State University but have not yet been formally reported in the literature. For a preliminary report see McCroskey, Scott and Young, (1971). The scales have a reliability greater than .90. The items selected represent the five dimensions of character, competence, composure, extroversion and sociability.

OPERATIONAL DEFINITIONS

The following operational definitions were used:

1. Anomic--a subject with a high combined score on the Srole Anomia Scale and the Dean Alienation Inventory.

2. Normal--a subject with a low combined score on the Srole Anomia Scale and the Dean Alienation Inventory.

3. No personal space invasion--no intrusion of a subject's personal space by another person. Previous research and theory indicated a three foot boundary for personal space.

To insure no perception of an invasion, the interviewer was instructed to maintain at least a four foot distance.

4. Personal space invasion--penetration of a subject's personal space by another person. Because perceptions of invasions differ, the interviewer was instructed to move to within one foot of the subject to insure that he perceived the proximity as an invasion. This is within the range defined by Hall (1959) as intimate distance, which is inappropriate for conversation with a stranger.

5. Situational anxiety--a score on the State Anxiety Inventory.

6. Chronic anxiety--a score on the Trait Anxiety Inventory.

7. Nonperson orientation--the inverse of a ratio on a short written essay of the number of sentences referring to the interviewer compared to the total number of sentences.

8. Source credibility--ratings on 15 semantic differential items comprising the five dimensions of character, composure, competence, extroversion, and sociability.

STATISTICAL DESIGN

The hypotheses related to the dependent variable of situational anxiety were analyzed through a two-way analysis of covariance, with Trait Anxiety as the covariant. The alpha level for significance was .05.

The hypotheses related to the dependent variables of nonperson orientation and source credibility were analyzed through a two-way analyasis of variance, with an alpha level for significance set at .05.

The correlational hypotheses were analyzed through a Pearson Product-Moment Correlation. A level of .40 was accepted as moderate correlation. A level of .60 or above was accepted as a high correlation.

RESULTS

To insure that at least 14 subjects per cell would satisfactorily complete the interview and measurements, 72 subjects were requested to report for the interview. After dropping out subjects who demonstrated a response set (i.e. marked all of their answers at one end of the scale), who were uncooperative

(i.e. refused to comply with instructions), who through their essays indicated awareness of the purpose of the study, or who were absent, 58 subjects remained. The two subjects whose combined anomia and alienation scores were closest to the mean (i.e. demonstrated high and low anomia) were then also dropped. To verify that the remaining subjects had been balanced in their assignment to the two conditions and that anomics were significantly different than normals, an analysis of variance was run on alienation and anomia scores of the subjects. The F-ratios and cell means are reported in Table 1. They indicate that on both measures, normals were significantly different than anomics. The cell means reveal that assignment of subjects to the invasion and no invasion conditions was balanced (i.e. there was no significant difference between cells within the normal and anomic conditions).

Situational Anxiety

Table 2 presents the cell means and summary of the analysis of variance and analysis of covariance on the situational anxiety scores. While the analysis of variance produced a significant column effect for anomia in the opposite direction of Hypothesis 2, when the scores were covaried with Trait anxiety, the difference disappeared so that Hypothesis 2 was not confirmed. No significant row effect for personal space invasion was found, which meant that Hypothesis 3 also was not confirmed.

Nonperson Orientation

Before analyzing the results on nonperson orientation, an arcsin transformation was performed on the data to normalize it and stabilize the variance. The actual computed ratios are in terms of a person orientation. A high score indicates a person orientation, a low score, a nonperson orientation. Table 3 presents the cell means and analysis of variance summary for the transformed nonperson orientation scores. A comparison of the cell means for anomics in the invasion condition to anomics in the no invasion condition failed to confirm Hypothesis 1. Hypothesis 4 was not confirmed: there was not a significant row effect for invasion of personal space. The results do show a significant column effect, providing confirmation for Hypothesis 5.

Source Credibility

The results on the five dimensions of source credibility are reported in Tables 4 through 8. The potential range of scores is from 3 to 21 for each dimension, with the high scores representing high credibility. Hypothesis 6 was only partially confirmed: on the dimension of sociability, a significant row effect for spatial invasion was found. No significant differences between invasion and no invasion were found for the dimensions of extroversion, character, competence and composure. No signifi-

cant column effects for anomia were found, although there was a trend, significant at the .10 alpha level for the dimension of extroversion. Since this was the only trend, Hypothesis 7 was considered as not confirmed.

Correlations

Supplementary correlational analyses were performed to determine the relationship between specific variables present in this investigation. A Product-Moment correlation between Anomia and Alienation was significant ($r = .63$). Additionally, there were statistically significant correlations between Trait Anxiety and Alienation ($r = .48$) and Trait Anxiety and Anomia ($r = .23$). These correlations confirmed Hypotheses 8 and 9. An analysis of variance of trait anxiety further confirmed Hypothesis 12 (see Table 9).

DISCUSSION

Anxiety

Hypothesis 2, that anomics exhibit less situational anxiety than normals when their personal space is invaded, and Hypothesis 3, that subjects have greater situational anxiety when their personal space is invaded than when it is not, were not confirmed. These findings can most easily be attributed to failure of the invasion induction to take. Previous field studies have shown that an invasion of personal space produces responses that are symptomatic of anxiety. The failure to induce anxiety in this investigation is therefore probably due to the laboratory setting. This explanation is supported by the fact that many subjects expressed suspicions about the nature of the experiment. A replication of this study in a field setting (or better disguised laboratory) would probably create more anxiety because such an invasion would be unexpected and unexplainable.

An alternative explanation for the failure to find significance on these hypotheses is that the State Anxiety Inventory is a weak instrument. Partial support for this view comes from the essays. In many instances, the subjects reported being uncomfortable, yet the instrument apparently did not tap this anxiety. A second possible weakness of the instrument is its use of the present tense. Its current wording is likely to cause subjects to respond more according to generalized anxiety or their state following the interview rather than their state during the interview (although they were instructed to respond to the interview situation). The validity of this criticism is supported by the fact that an analysis of variance on state anxiety, before covarying it with trait anxiety, produced

the same results as the trait anxiety analysis of variance: significant differences between anomics and normals and no other effects (see Tables 3 and 9). Covariance therefore would have removed any differences. If this study were to be replicated, it would be advisable to reword the items in the past tense to counteract this problem.

Nonperson Orientation

Hypothesis 1, that anomics have a higher level of nonperson orientation when their personal space is invaded than when it is not, was not confirmed. The results may have been due to the anomics already having high nonperson orientation, which would allow them to cope with both chronic and situational anxiety without becoming more nonperson oriented.

Hypothesis 4, that an invasion of personal space increases a nonperson orientation, was not confirmed. There are two possible explanations. The first is that a person's nonperson orientation is a stable characteristic not subject to influence by a spatial invasion. This explanation would contradict the assertions of Sommer (1969) and Fast (1970). The second, more likely explanation, is that cited above: the subjects disregarded the invasion. If the subjects did not become anxious as a result of the invasion, then there would be no expectation of an increased nonperson orientation as a coping response. Alternatively, the subjects may have been unaffected by the invasion because they were denied the choice of refusing to acknowledge or interact with the interviewer. Studies such as Argyle and Dean (1965) and Sommer (1969) have shown that a natural response is avoidance or flight. Since this option was not available to the subjects, they may have coped by ignoring the invasion.

Hypothesis 5, that anomics have a higher level of nonperson orientation than normals, was confirmed. This may be interpreted to mean that persons who are anomic relegate others to nonperson status; they are less conscious of or concerned about the presence of others than are non-anomics. The implication for communication is that anomia may inhibit effective communication because the anomic person does not relate well to other people. If he regards another individual as a nonperson, he is not likely to attend well to him, to empathize with him or to be influenced by him. Rather, he is likely to avoid communication with such persons. In addition, the essays reveal that anomics encode differently than normals: they encode fewer references to others in their environment. Future research should further consider the effects of nonperson orientation on actual encoding and decoding behaviors, on perception, and on evaluative responses.

The results of Hypothesis 5 may also be regarded as validation for the essay ratio as an instrument for measuring non-person orientation. The essay clearly distinguished differences between high and low anomic persons in their reporting of the interview situation: the normal (low anomic) subjects showed much greater awareness of the interviewer's behavior and perceived feelings.

Source Credibility

Hypothesis 6, that subjects rate an interviewer differently on source credibility when he invades personal space than when he does not, was only partially confirmed. On the dimension of sociability, the interviewer was rated lower when he invaded space. This is reasonable to expect because an invasion should make the subject uncomfortable, causing him to derogate the source of that discomfort. This finding may also be accounted for by the fact that excessive proximity is socially unacceptable behavior in our culture. Such a violation of norms would most likely be reflected in a low rating on the sociability dimension.

The failure to find any other significant effects on credibility from a violation of personal space may be attributable to two problems, a small sample size and differential perceptions of the invasion by the subjects. An examination of the within cell variances showed that they were highly discrepant, which mediated against obtaining significant results. A replication with a larger sample size would tend to stabilize and reduce the within variances and allow for an adequate testing of the hypothesis.

Hypothesis 7, that anomics rate an interviewer differently on source credibility than normals, was essentially not confirmed. Only one trend toward anomics rating the interviewer as more extroverted was found. This may have been due to the anomic's characteristic apathy causing him to perceive a greater contrast between himself and others. Under this interpretation, normals would naturally be perceived as more extroverted. The anomic's low self-esteem might also cause him to perceive others as more outgoing. As for the lack of differences on the other dimensions, the same problems of small sample size and large within variances mitigated against a valid test of the hypothesis.

Correlations

Hypothesis 8, that alienation correlates with anomia, was confirmed. The correlation was high, accounting for 40% of the variance. This finding justifies the use of both scales for tapping the anomia-alienation syndrome since it reveals that the

scales are interrelated but not isomorphic. The combination of the two scales encompasses more aspects of the syndrome than either scale alone. However, since the two scales are not completely overlapping, alienation and anomia should be studied conjointly to predict communication behaviors.

Hypothesis 9, that trait anxiety correlates with alienation and anomia, was confirmed, but the correlation with alienation was only moderate and the correlation with anomia was small. These findings confirm that anxiety is a frequent concomitant of alienation and anomia but that it does not have high predictive value for either syndrome. These findings also substantiate that the anomia and alienation scales are not identical.

SUMMARY OF LIMITATIONS

The methodological problems involved in this investigation were many. A major problem was the small sample size. A second problem was the apparent failure of the invasion induction to take. Factors that could have been responsible for this were the laboratory setting, which could have caused suspension of natural reactions, and differential perceptions of the invasion by the subject. Third, the State Anxiety Scale may have been an inappropriate instrument for tapping situational anxiety, if any existed.

SUMMARY AND IMPLICATIONS FOR FUTURE RESEARCH

Although the results of this investigation are limited, the methodological problems involved are probably largely responsible for the lack of significance. Despite these problems, some trends are apparent. The finding that anomics view others as nonpersons and perceive one aspect of source credibility differently than normals suggests that the syndrome of anomia may affect communication. Further, the essay responses indicate that anomics encode differently than normals. Rather than abandoning this variable, this study needs replication with a larger sample in a less suspicious setting with more precise instruments for measuring the dependent variables. Other studies have already found that anomics do not interact well with others and that they perceive communication denial on the part of others. The past findings plus the results of this investigation warrant additional research into the effects of anomia on communication. Little is known about different message behavior, nonverbal styles, or language patterns in high versus low anomics. The interaction patterns of high and low anomics also need further investigation. It would be interesting to know if the failures

to resolve conflict through communication are partially attributable to anomia-induced distrust and withdrawal from communication. If anomia is found to interact with communication behaviors, the enduring nature of the syndrome may predict a consistent communication pattern.

The general lack of support for the hypothesized relationships about invasion of personal space is also disappointing. Earlier research seemed to suggest an interaction between anomia and reactions to invasion of personal space. The methodological problems previously discussed probably mediated the effect. Rather than abandoning what appears to be a worthwhile theoretical issue, new operational definitions that can adequately test the hypotheses need to be devised.

TABLE 1

CELL MEANS AND ANALYSIS OF VARIANCE SUMMARY OF ANOMIA AND ALIENATION SCORES IN EXPERIMENTAL GROUPS

CONDITION	ALIENATION MEAN	ANOMIA MEAN
A. MEANS		
Normal: Invasion	31.79	10.50
Normal: No Invasion	32.50	11.36
Anomic: Invasion	62.00	20.50
Anomic: No Invasion	60.00	19.29
B. ANALYSIS OF VARIANCE SUMMARY		
Fcol (Anomia)	385.68*	161.12*
Frow (Invasion)	0.19	0.06
Fint (A x I)	0.85	2.15

*p < .001

TABLE 2

CELL MEANS AND ANALSIS OF VARIANCE AND COVARIANCE
SUMMARY OF SITUATIONAL ANXIETY SCORES**

CELL MEANS

CONDITION	MEAN	ADJ. MEAN
Normal: Invasion	37.36	38.88
Normal: No Invasion	36.57	37.40
Anomic: Invasion	44.79	43.90
Anomic: No Invasion	40.71	39.24

ANALYSIS OF VARIANCE SUMMARY

SOURCE OF VARIANCE	SS	DF	MS	F
Anomia	468.69	1	468.69	4.84*
Invasion	82.62	1	82.62	.85
Anomia x Invasion	37.69	1	37.69	.39
Within Cells	5031.90	52	96.77	
Total	5620.90	55		

ANALYSIS OF COVARIANCE SUMMARY

SOURCE (ADJUSTED)	SS	df	MS	F
Anomia	55.70	1	55.70	0.62
Invasion	154.18	1	154.18	1.72
Anomia x Invasion	34.28	1	34.28	.38
Within Cells	4578.67	52	89.78	
Total	4822.83	55		

*$p < .05$

**Potential range of scale 20 (low anxiety) to 80 (high)

TABLE 3

CELL MEANS AND ANALYSIS OF VARIANCE SUMMARY OF ARCSIN TRANSFORMED NONPERSON ORIENTATION SCORES**

CONDITION	MEAN
Normal: Invasion	1.66
Normal: No Invasion	1.75
Anomic: Invasion	1.06
Anomic: No Invasion	1.12

ANALYSIS OF VARIANCE SUMMARY

SOURCE OF VARIANCE	SS	df	MS	F
Anomia	5.28	1	5.28	10.91*
Invasion	0.07	1	0.07	0.15
Anomia x Invasion	0.01	1	0.01	0.00
Within Cells	25.14	52	0.48	
Total	30.50	55		

*$p < .05$

**A high score represents a person orientation; a low score represents nonperson orientation.

TABLE 4

CELL MEANS AND ANALYSIS OF VARIANCE SUMMARY
OF COMPETENCE DIMENSION SCORES

CELL MEANS

CONDITION	MEAN
Normal: Invasion	14.21
Normal: No Invasion	14.57
Anomic: Invasion	15.14
Anomic: No Invasion	15.14

ANALYSIS OF VARIANCE SUMMARY

SOURCE OF VARIANCE	SS	df	MS	F
Anomia	7.88	1	7.88	.57
Invasion	.44	1	.44	.03
Anomia x Invasion	.45	1	.45	.03
Within Cells	717.22	52	13.79	
Total	725.99	55		

TABLE 5

CELL MEANS AND ANALYSIS OF VARIANCE SUMMARY
OF CHARACTER DIMENSION SCORES

CELL MEANS

CONDITION	MEAN
Normal: Invasion	15.64
Normal: No Invasion	17.86
Anomic: Invasion	17.43
Anomic: No Invasion	17.14

ANALYSIS OF VARIANCE SUMMARY

SOURCE OF VARIANCE	SS	df	MS	F
Anomia	4.02	1	4.02	.50
Invasion	13.02	1	13.02	1.63
Anomia x Invasion	21.86	1	21.86	2.73
Within Cells	416.09	52	8.00	
Total	454.99	55		

TABLE 6

CELL MEANS AND ANALYSIS OF VARIANCE SUMMARY
OF COMPOSURE DIMENSION SCORES

CELL MEANS

CONDITION	MEAN
Normal: Invasion	16.00
Normal: No Invasion	13.86
Anomic: Invasion	16.50
Anomic: No Invasion	16.71

ANALYSIS OF VARIANCE SUMMARY

SOURCE OF VARIANCE	SS	df	MS	F
Anomia	39.45	1	39.45	2.42
Invasion	13.02	1	13.02	.80
Anomia x Invasion	19.44	1	19.44	1.20
Within Cells	846.08	52	16.27	
Total	917.99	55		

TABLE 7

CELL MEANS AND ANALYSIS OF VARIANCE SUMMARY
OF SOCIABILITY DIMENSION SCORES

CELL MEANS

CONDITION	MEAN
Normal: Invasion	16.29
Normal: No Invasion	18.07
Anomic: Invasion	16.86
Anomic: No Invasion	18.21

ANALYSIS OF VARIANCE SUMMARY

SOURCE OF VARIANCE	SS	df	MS	F
Anomia	1.80	1	1.80	.33
Invasion	34.58	1	34.58	6.29*
Anomia x Invasion	.63	1	.63	.11
Within Cells	285.88	52	5.50	
Total	322.89	55		

*p < .05

TABLE 8

CELL MEANS AND ANALYSIS OF VARIANCE SUMMARY
OF EXTROVERSION DIMENSION SCORES

CELL MEANS

CONDITION	MEAN
Normal: Invasion	16.79
Normal: No Invasion	16.79
Anomic: Invasion	17.86
Anomic: No Invasion	18.07

ANALYSIS OF VARIANCE SUMMARY

SOURCE OF VARIANCE	SS	df	MS	F
Anomia	19.45	1	19.45	2.98*
Invasion	.16	1	.16	.24
Anomia x Invasion	.15	1	.15	.24
Within Cells	339.38	52	6.53	
Total	359.14	55		

*$.05 < p < .10$

TABLE 9

CELL MEANS AND ANALYSIS OF VARIANCE SUMMARY
OF TRAIT ANXIETY SCORES

CELL MEANS

CONDITION	MEAN
Normal: Invasion	34.86
Normal: No Invasion	37.64
Anomic: Invasion	44.57
Anomic: No Invasion	46.93

ANALYSIS OF VARIANCE SUMMARY

SOURCE OF VARIANCE	SS	df	MS	F
Anomia	1263.50	1	1263.50	19.14*
Invasion	92.56	1	92.56	1.40
Anomia x Invasion	.62	1	.62	.01
Within Cells	3431.34	52	65.99	
Total	4788.02	55		

*$p < .05$

References

Ackerman, C., and Parsons, T. Concepts, theory and explanation in the behavioral sciences, New York: Random House, 1967.

Argyle, M., and Dean, J. Eye contact, distance and affiliation. Sociometry, 1965, 28, 289-304.

Barta, J. A. A study of the concurrence of anxiety and hostility. Unpublished doctoral dissertation, Fordham University, 1962. (Dissertation Abstracts, 1963, 9, 3471-3472.)

Baxter, J. C., and Deanovitch, B. F. Anxiety effects of inappropriate crowding. Journal of Consulting and Clinical Psychology, 1970, 35(2), 174-178.

Dean, D. G. Alienation: Its meaning and measurement. American Sociological Review, 1961, 26, 753-758.

Durkheim, E. Suicide. Glencoe, Ill.: Free Press, 1951.

Einstein, A. Why socialism. Monthly Review, 1949, 1, 9-15.

Elmore, T. M. The development of a scale to measure psychological anomie and its implications for counseling psychology. Proceedings of the 73rd Annual Convention of the American Psychological Association, 1965, 359-360.

Felipe, N. J., and Sommer, R. Invasions of personal space. Social Problems, 1966, 14, 206-214.

Friedenberg, E. The vanishing adolescent. Boston: Beacon Press, 1959.

Fromm, E. Marx's concept of man. New York: Frederik Unger Publishing, 1968.

Garfinkel, H. Studies of the routine grounds of everyday activities. Social Problems, 1964, 11, 225-250.

Gerston, W. M. Alienation in mass society: some causes and responses. Sociology and Social Research, 1965, 49, 143-152.

Giffin, K. Social alienation by communication denial. Research Report, University of Kansas, 1970.

Goldberg, G. N., Kiesler, C. A., and Collins, B. E. Visual behavior and face-to-face distance during interaction. Sociometry, 1959, 22, 247-260.

Hall, E. T. The silent language. New York: Doubleday, 1959.

Heston, J. and Anderson, P. Anomia-alienation and restrained communication among high school students. Contributed paper, Western Speech Association Convention, Hawaii, November, 1972.

Horowitz, M. H., Duff, D. F., and Stratton, L. O. Body-buffer zones. Archives of General Psychiatry, 1964, 11, 651-656.

Jackson, P. W. School achievement and alienation: Notes on the psychology of classroom failure. Guidance in American Education, 1965, 2, 140-154.

Janowitz, M. Consequences of social mobility in the United States. Transactions of the Third World Congress of Sociology. London: International Sociological Association, 1956, 3, 195.

Lyman, S. M., and Scott, M. B. Territoriality: A neglected sociological dimension. Social Problems, 1965, 15, 236-249.

McBride, G., King, M. G., and Jones, J. W. Social proximity effects on GSR in adult humans. Journal of Psychology, 1965, 61, 153-157.

Mehrabian, A. Some referents and measures of nonverbal behavior. Behavior Research Methods and Instrumentation, 1969, 1, 203-207.

Merton, R. K. Anomie, anomia and social interaction. In M. B. Clinard (Ed.), Anomie and Deviant Behavior. U.S.A.: Free Press of Glencoe, 1964.

Miller, D. C. Handbook in research design and social measurement. David McKay Co.: New York, 1970.

Nosphitz, J. D. Certain cultural and family factors contributing to adolescent alienation. Journal of the American Academy of Child Psychiatry, 1970, 9 (2), 216-223.

Patterson, M. L., Mullens, S., and Romano, J. Compensatory reactions to spatial intrusion. Sociometry, 1971, 34 (1), 114-121.

Patterson, M. L., Sechrest, L. B. Impression formation and interpersonal distance. Unpublished manuscript, Northwestern University, 1967.

Seeman, M. On the meaning of alienation. American Sociological Review, 1959, 24, 783-791.

Shoemaker, R. J. The phenomenon of dehumanization. Pennsylvania Psychiatric Quarterly, 1968, 8, 3-18. (Psychological Abstracts, 1969.)

Shore, M. F., and Massimo, J. L. The alienated adolescent: A challenge to the mental health professional. Adolescence, 1969, 4 (13), 19-34.

Sommer, R. Personal space: The behavioral basis of design. Englewood Cliffs, N. J.: Prentice-Hall, 1969.

Sommer, R. Studies in personal space. Sociometry, 1959, 22, 247-260.

Spielberger, C. D. Anxiety and behavior. New York: Academic Press, 1966.

Spielberger, C. D., Gorsuch, R. L., and Lushene, R. E. The State Trait Anxiety Inventory: Preliminary test manual for Form X. Tallahassee: Florida State University, 1968.

Srole, L. Social integration and certain corrollaries: An explanatory study. American Sociological Review, 1956, 21, 709-716.

Watson, O. M. Proxemic behavior: A cross-cultural study. The Hague: Mouton, 1970.

Williams, J. Personal space and its relation to extroversion-introversion. Unpublished masters thesis, University of Alberta, 1963, Cited in Patterson, Spatial factors in social interaction. Human Relations, 1968, 21, 350-361.